#### Disease Issues

- 1. Could you describe the burden estimates from last influenza season?
  - A. Influenza burden is published by <u>CDC each year.</u> Beginning with the 2018-2019 flu season, CDC began reporting <u>preliminary in-season flu burden estimates</u>. For the 2018-2019 influenza season, influenza infections were estimated to cause between 37.4 million and 42.9 million illnesses, up to 20.1 million flu medical visits, between 531,000 and 647,000 hospitalizations, and between 36,400 and 61,200 deaths nationally.
- 2. Isn't handwashing the first line of defense against spreading influenza?
  - A. Handwashing is extremely important and always recommended to <u>reduce the spread of germs</u>; however, flu vaccination is the single best tool available to prevent influenza. Vaccination helps to build antibodies to protect us specifically against flu. Handwashing may help prevent the spread of infection, along with covering a cough, and staying home from work when you are sick, but influenza vaccination should be recommended to every patient aged 6 months and older without contraindications.

#### Vaccine Recommendations

- 3. Does protection from flu vaccine decline or wane throughout the season? Should I wait until later in the year to vaccinate older patients?
  - A. It takes about 2 weeks after vaccination for the body to develop enough antibodies to protect you from the flu, so it is important to get a flu vaccine before flu viruses begin spreading in the community. <u>The Centers for Disease Control and Prevention (CDC) recommends</u> that all persons 6 months and older receive a flu vaccine by the end of October.

Early vaccination (for example, in July and August) is likely to be associated with waning immunity or reduced protection against flu infection later in the flu season, particularly among older adults. So, it might benefit older patients to be vaccinated in September or October. However, if deferral could result in a missed opportunity for that patient, healthcare providers should vaccinate that day. Refer to the current <u>Advisory Committee on Immunization Practices (ACIP) recommendations</u> for additional language regarding timing of influenza vaccination.

For the best protection, children aged 6 months through 8 years who require 2 doses of flu vaccine should receive their first dose as soon as possible after the vaccine becomes available to allow the second doses (which must be administered 4 weeks or more later) to be received by the end of October.

- 4. Should I vaccinate an unvaccinated patient who has just recovered from lab-confirmed flu?
  - A. Yes. Infection from one virus type does not confer immunity to other types of influenza, and it can be possible to be exposed to more than one virus during a flu season. So, it is important to vaccinate that patient to protect them for the remainder of the season.

However, it is a contraindication to receive LAIV within 48 hours of receipt of any influenza antiviral medication. So, if that patients will receive LAIV, they must wait 48 hours after receiving antiviral medications to be vaccinated with LAIV.

- 5. A patient aged 65 years or older who received standard dose flu vaccine requests later during the same season to receive an additional flu vaccine, either High-Dose or Adjuvanted. Is it okay to administer an additional dose of flu vaccine to a person this age?
  - A. No. ACIP does not recommend receiving more than one dose of flu vaccine in a season with the exception of children aged 6 months through 8 years who have not previously received at least 2 doses of flu vaccine prior to July 1,2019. These children are recommended to receive 2 doses of 2019-20 flu vaccine at least 4 weeks apart.
- 6. If my patient does not remember if they already received flu vaccine this season should we go ahead and vaccinate?
  - A. Yes. If a patient's vaccine status cannot be confirmed with documentation either with a receipt of vaccination or within the Michigan Care Improvement Registry (MCIR), then the person should be vaccinated. Document the dose in MCIR to help prevent overvaccination of patients in the future.
- 7. What are the recommendations for Flublok?
  - A. Flublok Quadrivalent, or Recombinant Influenza Vaccine (RIV), is recommended for adults aged 18 years and older. Adults this age can receive Flublok unless they have stated contraindications.

#### For Children

- 8. Please review the 2-dose algorithm for flu vaccination for children.
  - A. Children aged 6 months through 8 years who have not received at least 2 trivalent or quadrivalent flu vaccines before July 1, 2019 need 2 doses of 2019-20 flu vaccine separated by at least 4 weeks.
    - Children aged 6 months through 8 years who previously received at least 2 trivalent
      or quadrivalent flu vaccines prior to July 1, 2019 only need 1 dose of 2019-20 flu
      vaccine. The 2 previous doses of influenza vaccine do not need to have been
      administered in the same season or consecutive seasons and must be spaced at
      least 4 weeks apart.
    - Please see Who Needs 2 Doses of 2019-20 Seasonal Influenza Vaccine for additional information.
- 9. If a child received LAIV from another provider and was identified as needing a 2<sup>nd</sup> dose of flu vaccine this season, is there a recommendation on whether LAIV needs to be the 2<sup>nd</sup> dose or if an injectable flu vaccine product can be given at another clinic?
  - A. It is recommended to utilize the same product if available, however, not all influenza vaccines are likely to be uniformly available in any given practice setting or geographic locality. Vaccination should not be delayed to obtain a specific product when an age-appropriate one is available. No preferential recommendation is made for one flu vaccine product over another. Ensure the vaccine that you are using is age-appropriate

and that you give the correct dosage based on the patient's age and the flu vaccine product being used. Also ensure that you have at least 4 weeks between the 2 doses.

- 10. Can a child who needs 2 doses of flu vaccine this season receive a combination of 2 different products for their shots?
  - A. Yes. For example, a child can receive their first dose as Fluzone and their second dose as Fluarix. It is important to make sure they are receiving the correct dosage for their age and the specific product you are using, so please refer to our flu vaccine dosage handout as referred to in the previous question.
- 11. For Fluzone, how do you determine whether to give 0.25 mL or 0.5 mL? If 0.25 mL is given, do you need to give 2 doses?
  - A. Children aged 6 months through 35 months can receive either a 0.25 mL dose or a 0.5 mL dose for Fluzone Quadrivalent. If they are indicated to receive 2 doses for this flu season and they receive Fluzone again for the second dose, they should receive either 0.25 mL or 0.5 mL 4 weeks after their initial dose.

For all persons aged 3 years and older, injectable flu vaccine dosage is 0.5 mL regardless of the flu vaccine product being used. For more information, please refer to the 2019-20 Seasonal Influenza Vaccine Dosage for Children handout, 2019-20 Flu Presentation Chart, and () which can be found at <a href="https://www.michigan.gov/flu">www.michigan.gov/flu</a> under "Current Flu Season Vaccination Materials for Health Care Professionals."

- 12. Is there currently any work being done to develop an influenza vaccine for infants less than 6 months of age?
  - A. At this time, we have not heard of any expansion of age indications for flu vaccine for this group. However, CDC is always collecting data and continually doing studies to assure the best protection from influenza. Additionally, it is vital that pregnant women receive the influenza vaccine at any time during their pregnancy. The mother will develop antibodies against influenza which will enter the placenta and transfer to the baby. This helps protect the baby during their first few months of life.

## For Special Groups

- 13. Should those who have had allergic reactions to egg including angioedema, swelling, and/or anaphylactic shock receive a flu vaccine?
  - A. Yes. Those who have had a severe reaction to egg should still receive any licensed, recommended flu vaccine (i.e., IIV, RIV4, LAIV4) that is otherwise appropriate for their age and health status. It should be administered in an inpatient or outpatient medical setting and supervised by a healthcare provider who is able to recognize and manage severe allergic reactions. Please see <a href="2019-20 Influenza Vaccine Screening for Persons who Report Egg Allergy">2019-20 Influenza Vaccine Screening for Persons who Report Egg Allergy</a> for additional information.

**Remember:** A previous severe allergic reaction to **influenza vaccine**, regardless of the component suspected of being responsible for the reaction, is a contraindication to future receipt of the flu vaccine.

- 14. Can a woman who is breastfeeding receive Live Attenuated Influenza Vaccine (LAIV)?
  - A. Yes. Breastfeeding is not a contraindication for any routine vaccination, including LAIV.
- 15. If a patient is undergoing treatment for cancer, is it safe to vaccinate them with flu vaccine?
  - A. Yes. Those with cancer are immunocompromised and can and should receive an age-appropriate Inactivated Influenza Vaccine (IIV) or Recombinant Influenza Vaccine (RIV). Cancer patients and survivors are at increased risk for influenza-related complications, including hospitalization and death.
    - LAIV is contraindicated for any child or adult who is immunocompromised due to any cause (including immunosuppression caused by medications or HIV infection).
- 16. When will high dose flu vaccine be quadrivalent?
  - A. On November 4, 2019, the U.S. Food and Drug Administration (FDA) approved Fluzone High-Dose Quadrivalent for use in adults 65 years of age and older. It is projected to be available for the 2020-2021 flu season. The trivalent formulation will continue to be available for the rest of the current 2019-2020 season.

#### Administering Vaccines

- 17. If my patient previously had a reaction to flu vaccine, can I split a single dose and administer it over 2 different days?
  - A. No. It is not an acceptable practice to split a single dose over different days. Patients should never receive a "half-dose" for what they are recommended. Patients should always be screened before vaccine administration for contraindications. Consult <u>ACIP</u> recommendations for specific language regarding contraindications and precautions.
- 18. Is all flu vaccine given intramuscularly (IM)?
  - A. All Inactivated Influenza Vaccines (IIV) and Recombinant Influenza Vaccines (RIV) are given intramuscularly. The only vaccine not given IM is LAIV which is administered as an intranasal spray. Refer to our flu vaccine administration handout <a href="here">here</a> for full administration instructions.
- 19. Can I give Shingrix and influenza vaccine in the same day?
  - A. Yes. Shingrix is an inactivated vaccine so it can be administered with other inactivated or live vaccines. If flu vaccine and Shingrix are administered on the same day, they should be given in different anatomical sites (e.g. different limbs). <a href="CDC recommends">CDC recommends</a> that vaccines with novel adjuvants should be administered at separate anatomical sites from other vaccines that are given concomitantly.
- 20. If a patient needs flu, pneumococcal vaccine, and Shingrix vaccine, what do you recommend for site administration?
  - A. CDC's General Best Practice Guidelines for Immunization advise that non-live vaccines, such as recombinant zoster vaccine (RZV, Shingrix), can be administered concomitantly at different anatomic sites with any other live or non-live vaccine. They should be given as separate injections, not combined in the same syringe. We would recommend

administering flu and pneumococcal in the deltoid muscle on one side separated by 1 inch and administering Shingrix by itself in the deltoid muscle on the other side. Remember the anterolateral thigh (vastus lateralis muscle) is also an approved IM vaccine administration site if needed.

- 21. Is it an acceptable practice to pre-draw flu vaccination from a multi-dose vial into syringes to have on hand or even refrigerate overnight if not used that business day?
  - A. No. The ACIP discourages the practice of prefilling vaccine into syringes, primarily because of the increased possibility of administration and dosing errors. An exception may be considered when only a single type of vaccine is to be administered during a clinic (e.g., influenza). As an alternative CDC recommends using manufactured-supplied prefilled syringes, however, once you remove the syringe cap or attach a needle, the sterile seal is broken. You should either use the syringe that clinic day or discard it at the end of the clinic day if unused. For more information on prefilling syringes, please read <a href="https://www.immunize.org/technically-speaking/20110901.asp">www.immunize.org/technically-speaking/20110901.asp</a>.

#### **Contraindications & Precautions**

- 22. Is a latex allergy a contraindication to receiving the influenza vaccine?
  - A. No. There are <u>currently no influenza products</u> that contain latex in packaging.

    A contraindication to receiving a flu vaccine is a history of a severe allergic reaction to any component of a flu vaccine or to a previous dose of a flu vaccine. Therefore, it is important to review the components within the influenza product you are planning to vaccinate with and if a patient has had a history of severe reaction to any component of that flu vaccine then they should not receive that product.

    LAIV has additional contraindications and providers should refer to the MDHHS LAIV quick look here for more information.

#### Other

- 23. Is there a standardized screening form for patients receiving a flu vaccine?
  - A. The Immunization Action Coalition has developed the following standardized influenza screening checklists:
    - <u>Screening Checklist for Contraindications to Inactivated Injectable Influenza</u> Vaccination
    - <u>Screening Checklist for Contraindications to Live Attenuated Intranasal Influenza Vaccination</u>
- 24. Where can we find the Vaccine Information Statements (VIS)?
  - A. The Michigan-specific VIS for all vaccines can be found <a href="here">here</a>. In Michigan, it is important that vaccine recipients, their parents, or their legal representatives be given the Michigan versions of the VIS because they include information about the Michigan Care Improvement Registry (MCIR). By state law in Michigan, parents and patients must be informed about MCIR. VIS that are obtained from other sources (e.g., from the CDC or Immunization Action Coalition) do not contain information about MCIR.
- 25. Should any immunizing provider be reporting to MCIR?

A. Yes. Doses administered to children aged 20 years and younger are required to be reported to MCIR within 72 hours of vaccine administration. While it is not required for doses given to adults over the age of 20 years to be reported to MCIR, it is highly recommended. Please see <a href="Law, Administrative Code">Law, Administrative Code</a> and <a href=Public Acts Related to MCIR for additional information.

#### References

- CDC Main Flu Page: www.cdc.gov/flu
- MDHHS Main Flu Page: www.michigan.gov/flu
- CDC-Influenza burden: https://www.cdc.gov/flu/about/burden/index.html
- CDC- Who Needs a Flu Vaccine and When: <a href="https://www.cdc.gov/flu/prevent/vaccinations.htm">https://www.cdc.gov/flu/prevent/vaccinations.htm</a>
- 2019-2020 Advisory Committee on Immunization Practices Influenza Recommendations: https://www.cdc.gov/mmwr/volumes/68/rr/rr6803a1.htm
- MDHHS- Who Needs 2 Doses of 2019-2020 Seasonal Influenza Vaccine:
   <a href="https://www.michigan.gov/documents/mdhhs/2">https://www.michigan.gov/documents/mdhhs/2</a> Dose Algorithm 631202 7.pdf
- MDHHS- 2019-2020 Seasonal Influenza Vaccine Dosage for Children: <a href="https://www.michigan.gov/documents/mdhhs/Peds">https://www.michigan.gov/documents/mdhhs/Peds</a> Flu Dosage 631206 7.pdf
- MDHHS- Seasonal Influenza Vaccine Presentation Chart:
   <a href="https://www.michigan.gov/documents/mdhhs/Flu">https://www.michigan.gov/documents/mdhhs/Flu</a> Presentation Chart 631205 7.pdf
- MDHHS- 2019-2020 Influenza Vaccine Screening for Persons who Report Egg Allergy: <a href="https://www.michigan.gov/documents/mdhhs/Egg Allergy Screening 631204">https://www.michigan.gov/documents/mdhhs/Egg Allergy Screening 631204</a> 7.pdf
- MDHHS- Flu Vaccine Administration Chart:
   <a href="https://www.michigan.gov/documents/mdhhs/Administering\_Flu\_Vaccine\_IM\_IN\_19-20\_664607">https://www.michigan.gov/documents/mdhhs/Administering\_Flu\_Vaccine\_IM\_IN\_19-20\_664607</a> 7.pdf
- Immunization Action Coalition- Guidance on Why Not to Prefill Syringes: <a href="https://www.immunize.org/technically-speaking/20110901.asp">https://www.immunize.org/technically-speaking/20110901.asp</a>
- MDHHS- LAIV Quick Look: https://www.michigan.gov/documents/mdhhs/LAIV Quick Look 631984 7.pdf
- IAC: Screening Checklist for Contraindications to Inactivated Injectable Influenza Vaccination: <a href="https://immunize.org/catg.d/p4066.pdf">https://immunize.org/catg.d/p4066.pdf</a>
- IAC- Screening Checklist for Contraindications to Live Attenuated Intranasal Influenza Vaccination: <a href="https://immunize.org/catg.d/p4067.pdf">https://immunize.org/catg.d/p4067.pdf</a>
- Michigan Vaccine Information Statements (VIS): <a href="https://www.michigan.gov/mdhhs/0,5885,7-339-73971">https://www.michigan.gov/mdhhs/0,5885,7-339-73971</a> 4911 4914 6385-138197--,00.html
- Law, Administrative Code, and Public Acts Related to MCIR: <a href="https://www.mcir.org/resource/laws/">https://www.mcir.org/resource/laws/</a>
- CDC-Pink Book Latex in Vaccine Packaging: <a href="https://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/b/latex-table.pdf">https://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/b/latex-table.pdf</a>
- CDC- Healthy Habits to Prevent Flu: https://www.cdc.gov/flu/prevent/actions-prevent-flu.htm